



Typical Applications

- Low cost signal generators
- Test equipment
- Communication systems
- EW systems
- Radar systems
- Frequency conversion
- OEM integration into RF systems

Features

- Wideband RF output
- Integer and Fractional operating modes
- Variable output power: 30 dB range typical
- USB interface
- USBTMC VISA Compliant

General Description



The AR2010 High Frequency Wideband synthesizer family from Applied Radar, Inc. offers a low cost solution to today's demanding RF signal generation needs.

The AR2010 High Frequency Wideband Synthesizer Modules are low-cost, wideband frequency synthesizers ideally suited for bench top test and measurement as well as

low-cost small form-factor radar and communications systems. Its wide output frequency range, superb spurious rejection, and excellent phase noise performance provide a high-quality, low-cost alternative to bench top RF signal generators. An internal reference allows the unit to operate without any external components, but also has an input for an external reference. The USB stick design is small enough to even fit in your pocket!

The synthesizer module is powered and controlled directly by a host PC through USB. The AR2010 High Frequency Wideband family is VISA compliant, enabling seamless cross-platform use.

Electrical Specifications

Parameter	Min.	Typ.	Max.	Units
RF Operating Frequency				
AR2010-10-20	10		20	GHz
AR2010-6-12	6		12	GHz
AR2010-5-10	5		10	GHz
RF Output Power		0		dBm
Power Resolution		1		dB
Attenuation Accuracy		±1		dB
Reference Input Frequency (Sine)	5	10	100	MHz
Reference Input Power (Sine)	0		15	dBm
RF Harmonics: 2 * RFout		-20		dBc
RF Phase Noise: (100 kHz Offset)		-95		dBc/Hz
Locking Time			500	us
Frequency Resolution:*		10		MHz
Integer Mode		0.6		Hz
Fractional Mode				

*For a 10 MHz reference input.